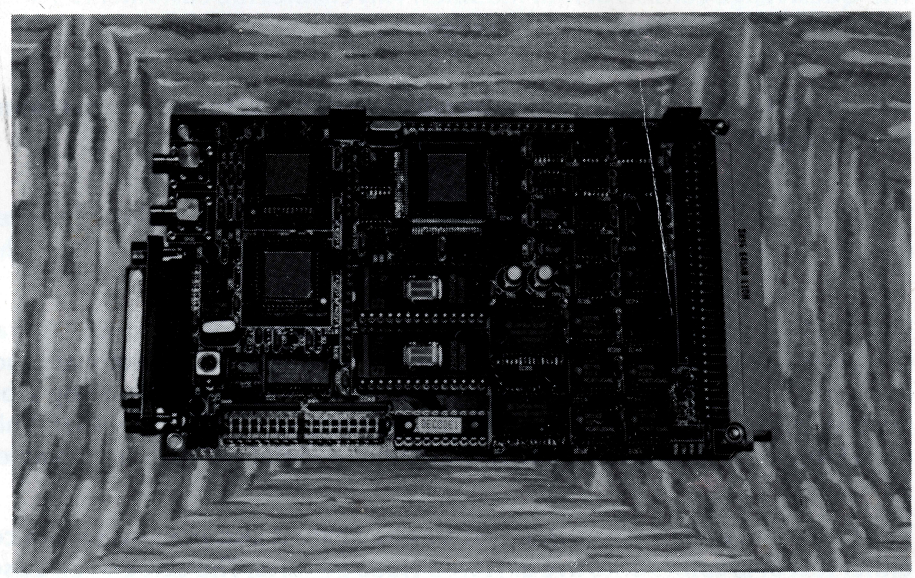
STE BUS COMPATABLE VIDEO FRAMESTORES

# THE QUEST RANGE

The Quest range is a variety of high quality video framestores with various addition features, explained overleaf. Primarily they are designed for use with the industry standard STE bus, however the more advanced modules are self sufficient and can be used independantly.



The modules accept standard video sources. The video is digitized and then stored into a large internal memory. The image is then read back from memory and displayed, in colour if required. The STE bus can freely read and write to the image at all times of the video cycle.

Quantum Image supply the modules with a useful software package, written in "C", for IBM compatable PCs. This enables disk operations, image processing and serial link communications.

The modules are controlled either by the STE bus or remotely via the external control port.

## FEATURES AND BENEFITS:

- ★ A high quality video picture with a spatial resolution of 512 lines by 512 pixels and an amplitude resolution of 8 bits, 256 grey levels.
- ★ The unit can be configured, by the user, for a variety of video standards, enabling a wide range of video inputs to be used.
- ★ An input look up table caters for various gamma values and cameras with a non linear responses.
- ★ Up to 256 colours displayed simultaneously from a palette of over 16 million, as defined by the user.
- ★ Either STE bus or remote TTL level control of all the capture and display options. This allows the user to easily interface the unit to their equipment.
- ★ The unit can be used as a framestore or as two completely independent fieldstores. This enables the unit to store two images.
- ★ The modules are constructed from the top quality multilayer PCBs and use the latest surface mounted components. This reduces noise and achieves an extremely high level of performance on a board of size 160 x 100mm.

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# THE QUEST RANGE

The Quest range consists of four modules. This enables the customer to select the optimum device to satisfy their requirements in the most cost effective way.

The Q-EST-1 is the basic module in the range. It offers all the features previously explained and it is dependent on the STE bus for system initializing.

The Q-EST-2 in addition to the Q-EST-1 this module has an onboard processor to initialise the system and to control various functions. It could therefore be used independently from the STE bus.

The Q-EST-3 also has an onboard processor, however the processor can also access the video image. It can therefore perform a comprehensive range of image processing software such as histogram equalization, edge detection, filtering or custom designed operations. There is a cunning arbitration circuit on the module that enables both the STE bus and the onboard processor to work together. This frees the main STE processor and therefore increases its performance and reduces high level software complexity.

The Q-EST-4 has all the previous features however it also possesses a five colour overlay screen for displaying either text or graphics onto live or stored video pictures. The colours can be selected by the user from a palette of over 16 million. On the graphics screen individual pixels can be accessed whereas the text screen has a resolution of 32 x 32 characters from large on board character sets. It is also possible to mix live and stored video images onto the same screen in areas defined by the user. This is useful for creating composite images or comparing them.

## ADDITIONAL FEATURES AND BENEFITS

- ★ A five colour overlay screen for adding graphics onto live or stored video pictures.
- ★ A text screen of 32 x 32 characters, ASCII, enhanced or Greek character sets fitted as standard.
- ★ Live and stored can be mixed on the same screen in user definable screen areas.
- ★ 68000 family processor for fast onboard image processing or user defined software.

## PRODUCT SUMMARY

| | Framestore | Basic Processor | Image Co-processor | Colour Overlays |
|---|---|---|---|---|
| Q-EST-1 | X | | | |
| Q-EST-2 | X | X | | |
| Q-EST-3 | X | | X | |
| Q-EST-4 | X | | X | X |

## CONTROL PORT PINOUT

| | |
|---|---|
| 1 | TTL input, 0v causes the unit to grab one image. |
| 2 | TTL input, 0v causes the unit to load live video. |
| 3 | TTL input, 0v selects between frame or field operation |
| 4 | TTL input, 0v selects field 1 or 2 when in field mode. |
| 5 | 0v. |
| 6 | 0v. |
| 7 | 0v. |
| 8 | 0v. |
| 9 | Blue video output, 1v pk-pk. |
| 10 | Green composite video output 1v pk-pk. |
| 11 | Red video output, 1v pk-pk. |
| 12 | Reserved for future use. |
| 13 | TTL output, Composite sync pulses. |
| 14 | TTL output, Field sync pulses. |
| 15 | Reserved for future use. |
| 16 | Reserved for future use. |
| 17 | Video input 3. |
| 18 | Video input 2. |
| 19 | Video input 1. |
| 20 | Video input 0. |
| 21 | 0v. |
| 22 | 0v. |
| 23 | 0v. |
| 24 | 0v. |
| 25 | Reserved for future use. |

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